

**Prioritizing Mitigation Efforts Considering Co-benefits and Equity:
Energy Transitions**

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Abstract: This research builds on an established holistic energy policy sustainability evaluation framework which incorporates quantified social equity alongside economic and environmental factors in energy policy decision making. This framework enables policy makers to proactively develop energy policy which can meet energy policy goals in an equitable manner.

Previously this framework has been applied to an assessment of the Australian National Energy Market (NEM) grid, demonstrating the efficacy of the tool for a jurisdiction wide application. This research seeks to apply the evaluation framework, incorporating decision making factors in a specific application within Australia: Transition from coal fired generation to solar and wind based alternatives, in order to derive a priority RE transition schedule.

The local application takes advantage of an Energy Policy and Social Equity hearing, conducted in March-May of 2016 with energy policy experts in Australia in order to derive specific social equity factors which influence energy policy decision making. Utilizing the outcomes of this hearing alongside traditional and social equity based energy policy analyses, a series of policy options are derived and critical factors and their level of influence on efficiency and equity are clarified.